

24 de Octubre de 2016

- Las Plataformas para Estadística: Excel.

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$N \Rightarrow$  # DE ELEMENTOS TOTAL DEL ESPACIO MUESTRAL

$S = \{ \text{BBBBBBBBBBBBMMMM} \}$   $N = 14$   $P(x) = \frac{1}{14}$

$M \Rightarrow$  # DE ELEMENTOS QUE CUMPLEN EL OBJ. EST.

$$M = 4$$

$$n = 3$$

$$F(x) = P(X=k) = \frac{C_k^m \cdot C_{n-k}^{N-m}}{C_n^N}$$

Rango  $\max(n+m-N, 0) \leq k \leq \min(m, n)$

$$\sum_{k=0}^3 P(X=k) = 1 \quad 0 \leq k \leq 3$$

$$E(x) = n \left( \frac{m}{N} \right) \quad n \left( \frac{m}{n} \right)$$

$$V(x) = n \left( \frac{m}{N} \right) \left( 1 - \frac{m}{N} \right) \left( \frac{N-n}{N-1} \right) \quad \sigma = \sqrt{V(x)}$$

$$2 - P(X=k) = \left( \frac{(\lambda t)^k}{k!} \right) e^{-(\lambda t)}$$

$$\mu = E(X) = \lambda t$$

$$\sigma^2 = V(X) = \lambda t$$

$$\sigma = \sqrt{\sigma^2}$$

$$P(X=0) = \frac{C_0^4 C_{3-0}^{14-4}}{C_3^{14}} = \frac{(1) C_3^{10}}{C_3^{14}}$$

$$C_3^{10} = \frac{10!}{3!7!} \Rightarrow \frac{10 \times 9 \times 8}{3 \times 2} \Rightarrow \frac{720}{6} = 120$$

$$C_3^{14} = \frac{14!}{3!11!} \Rightarrow \frac{14 \times 13 \times 12}{3 \times 2} = \frac{2184}{6} = 364$$

$$P(X=0) = 0.329$$

$$P(X \neq 0) = 1 - P(X=0)$$

$$0.671$$

4) 20 clients/hora

$$E(x) = 20$$

$$V(x) = 20$$

$$P(x \geq 25) = 1 - P_A(x=24)$$

$$P(x \geq 25) = 1 - 0.843 = 0.157$$

C11

✕ ✓ fx

=DISTR.HIPERGEOM.N(B11;nn;mm;N;FALSO)

	A	B	C	D	E	F	G	H
1								
2	N	14						
3	m	4						
4	n	3						
5			hipergeom					
6	k	1	0.494505495					
7		2	0.164835165					
8		3	0.010989011					
9			0.67032967					
10								
11		0	0.32967033	0.67032967				
12								
13								
14	mu	20						
15								
16			poisson acumulado					
17	k	24	0.843227378					
18			0.156772622					
19								
20			poisson no acumulado					
21	k	25	0.044587649					
22								
23								
24								
25								
26								

Gráfico1

Gráfico2

Hoja1

Hoja2

+

Listo

